

Metric and Thermal Conversion Tables

Metric Conversions

Table B1 presents Summary Statistics for Natural Gas in the United States for 1992 through 1996 in metric units of measure. Volumes are shown in cubic meters instead of cubic feet. Prices are shown in dollars per thousand cubic meters instead of dollars per thousand cubic feet. The data in this table have been converted from the data that appear in Table 1 of this report.

Thermal Conversions

Table B2 presents the thermal (Btu) conversion factors and the converted data for natural gas supply and disposition from 1992 through 1996. A brief documentation for the thermal conversion factors follows:

- *Marketed Production.* The conversion factor is calculated by adding the total heat content of dry production to the total heat content of extraction loss and dividing the resulting sum by the total quantity of dry production and extraction loss (see below).
- *Extraction Loss.* The conversion factor is obtained from Appendix A of this publication.
- *Dry Production.* The conversion factor is assumed to be the same as the thermal conversion factors for consumption (see below).
- *Receipts at U.S. Borders.* The conversion factor for imports was obtained from the discontinued Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." The 1994 conversion factor has been applied to 1995 and 1996 volume data. Intransit receipts are assumed to have the same average heat content as imports.
- *Withdrawals from Storage.* Both underground and LNG storage withdrawals are assumed to have the same heat content as consumption (see below).
- *Supplemental Gas Supplies.* This conversion factor is assumed to be the same as that for consumption (see below).
- *Balancing Item.* This conversion factor is calculated by subtracting the total heat content of all other items of supply from the heat content of total disposition (from Table B2) and dividing the difference by the balancing item quantity.
- *Consumption.* The thermal conversion factor for total consumption (lease fuel, plant fuel, pipeline fuel, and deliveries to consumers) is the average heat content for deliveries to end users as reported on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." Average heat content of electric utility consumption is obtained from EIA's *Electric Power Annual*. The factor for nonutility consumption is calculated by subtracting the total heat content of electric utility consumption from the heat content of total consumption and dividing the difference by the quantity of nonutility consumption (total consumption less electric utility consumption).
- *Deliveries at U.S. Borders.* The conversion factor for exports was obtained from the discontinued Form FPC-14. The 1994 conversion factor has been applied to 1995 and 1996 volume data. Intransit deliveries are assumed to have the same average heat content as exports.
- *Additions to Storage.* Additions to both underground and LNG storage are assumed to have the same heat content as consumption (see above).

Table B1. Summary Statistics for Natural Gas in the United States, Metric Equivalents, 1992-1996

	1992	1993	1994	1995	1996
Reserves (billion cubic meters)					
Estimated Proved Reserves (dry) as of December 31	4,673	4,599	4,639	4,676	4,714
Number of Gas and Gas Condensate Wells Producing at End of Year.....	275,414	282,152	291,773	298,541	301,811
Production (million cubic meters)					
Gross Withdrawals					
From Gas Wells.....	457,738	472,640	491,327	489,373	500,664
From Oil Wells	168,977	170,878	176,404	182,972	180,403
Total.....	626,716	643,519	667,731	672,345	681,067
Repressuring	-84,173	-87,868	-91,482	-100,950	-99,401
Nonhydrocarbon Gases Removed	-7,939	-11,722	-11,672	-10,998	-14,680
Wet After Lease Separation.....	534,603	543,929	564,577	560,396	566,986
Vented and Flared	-4,744	-6,421	-6,466	-8,035	-7,705
Marketed Production.....	529,859	537,508	558,112	552,362	559,280
Extraction Loss	-24,690	-25,102	-25,160	-25,706	-27,133
Total Dry Production	505,170	512,406	532,952	526,656	532,148
Supply (million cubic meters)					
Dry Production	505,170	512,406	532,952	526,656	532,148
Receipts at U.S. Borders					
Imports.....	60,527	66,548	74,299	80,450	83,178
Intransit Receipts	13,767	9,177	13,812	13,946	15,187
Withdrawals from Storage					
Underground Storage	77,129	76,939	71,023	84,217	82,440
LNG Storage.....	1,374	2,327	2,002	1,428	1,962
Supplemental Gas Supplies	3,339	3,370	3,138	3,123	3,099
Balancing Item	-14,373	-3,103	-11,768	-6,513	7,899
Total Supply.....	646,933	667,664	685,458	703,307	725,913
Disposition (million cubic meters)					
Consumption.....	553,435	574,240	586,377	611,096	622,036
Deliveries at U.S. Borders					
Exports.....	6,124	3,970	4,580	4,364	4,344
Intransit Deliveries	13,767	9,177	13,380	13,946	15,187
Additions to Storage					
Underground Storage	72,361	78,147	79,182	72,658	82,277
LNG Storage.....	1,247	2,130	1,939	1,243	2,069
Total Disposition	646,933	667,664	685,458	703,307	725,913
Consumption (million cubic meters)					
Lease Fuel	20,112	20,476	19,817	22,436	22,654
Pipeline Fuel	16,642	17,678	19,407	19,831	20,146
Plant Fuel.....	13,042	12,709	12,003	12,115	12,744
Delivered to Consumers					
Residential	132,808	140,351	137,272	137,346	148,420
Commercial.....	79,365	81,031	81,978	85,831	89,432
Industrial	213,138	226,009	231,265	242,947	251,182
Vehicle Fuel.....	14	27	49	76	83
Electric Utilities	78,313	75,958	84,587	90,515	77,376
Total Delivered to Consumers	503,639	523,376	535,150	556,714	566,493
Total Consumption.....	553,435	574,240	586,377	611,096	622,036
Delivered for the Account of Others (million cubic meters)					
Residential	1,173	1,255	1,199	1,282	1,392
Commercial.....	13,337	13,028	16,963	19,996	20,011
Industrial	148,624	159,846	173,099	184,551	202,519
Electric Utilities	48,064	46,962	59,242	59,757	52,995

See footnotes at end of table.

Table B1. Summary Statistics for Natural Gas in the United States, Metric Equivalents, 1992-1996
(Continued)

	1992	1993	1994	1995	1996
Firm Deliveries (million cubic meters)					
Residential	NA	NA	137,167	137,234	148,270
Commercial	NA	NA	72,477	75,051	79,271
Industrial	NA	NA	134,055	145,550	152,584
Electric Utilities	NA	NA	44,762	49,808	42,670
Vehicle Fuel	NA	NA	38	69	76
Interruptible Deliveries (million cubic meters)					
Residential	NA	NA	NA	112	150
Commercial	NA	NA	9,501	10,779	10,160
Industrial	NA	NA	97,210	97,397	98,599
Electric Utilities	NA	NA	34,276	32,504	28,011
Vehicle Fuel	NA	NA	11	6	7
Number of Consumers					
Residential	52,331,397	52,535,411	53,392,557	54,322,179	55,263,673
Commercial	4,409,699	4,464,906	4,533,905	4,636,500	4,720,227
Industrial	209,616	209,666	202,940	209,398	206,049
Average Annual Consumption per Consumer (thousand cubic meters)					
Residential	3	3	3	3	3
Commercial	18	18	18	19	19
Industrial	1,017	1,078	1,140	1,160	1,219
Average Prices for Natural Gas (dollars per thousand cubic meters)					
Wellhead (Marketed Production)	61.45	72.04	65.33	54.74	76.63
Imports	65.33	71.69	66.04	52.62	69.57
Exports	79.46	91.46	88.29	84.40	104.88
Pipeline Fuel	73.10	69.57	60.03	52.62	80.16
City Gate	106.30	113.36	108.42	98.17	115.48
Delivered to Consumers					
Residential	208.00	217.54	226.37	214.01	223.89
Commercial	172.34	184.34	192.11	178.34	190.70
Industrial	100.29	108.42	107.71	95.70	120.78
Vehicle Fuel	143.02	150.79	145.14	140.55	153.27
Electric Utilities	83.34	92.17	80.52	71.34	95.00

NA = Not available.
Notes: Beginning in 1987, prices for gas delivered to consumers are calculated using only on-system sales data. No imputations are made for prices of gas delivered for the account of others. In previous years, prices were calculated using reported values and values imputed for gas delivered for the account of others. The United States includes the 50 States and the District of Columbia. Totals may not equal sum of components due to independent rounding. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use.

Sources: Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1992 through 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996); Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"; Form EIA-816, "Monthly Natural Gas Liquids Report"; Form EIA-759, "Monthly Power Plant Report"; Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"; Form EIA-191, "Underground Gas Storage Report"; Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1992 through 1994); Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 and 1996); U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports, DOE/EIA-0216; and the U.S. Minerals Management Service.

Table B2. Thermal Conversion Factors and Data, 1992-1996

	1992	1993	1994	1995	1996
Conversion Factor (Btu per cubic foot)					
Production					
Marketed.....	1,110	1,106	1,105	1,106	1,109
Extraction Loss	2,753	2,740	2,735	2,730	2,721
Total Dry Production	1,030	1,027	1,028	1,027	1,027
Supply					
Dry Production.....	1,030	1,027	1,028	1,027	1,027
Receipts at U.S. Borders					
Imports.....	1,011	1,020	1,022	1,021	1,022
Intransit Receipts	1,011	1,020	1,022	1,021	1,022
Withdrawals from Storage					
Underground Storage	1,030	1,027	1,028	1,027	1,027
LNG Storage.....	1,030	1,027	1,028	1,027	1,027
Supplemental Gas Supplies	1,030	1,027	1,028	1,027	1,027
Balancing Item	949	997	937	988	1,047
Total Supply	NA	NA	NA	NA	NA
Disposition					
Consumption.....	1,030	1,027	1,028	1,027	1,027
(Electric Utility)	(1,022)	(1,022)	(1,022)	(1,025)	(1,024)
(Non-Utility)	(1,031)	(1,028)	(1,029)	(1,027)	(1,027)
Deliveries at U.S. Borders					
Exports.....	1,018	1,016	1,011	1,011	1,011
Intransit Deliveries	1,018	1,016	1,011	1,011	1,011
Additions to Storage					
Underground Storage	1,030	1,027	1,028	1,027	1,027
LNG Storage.....	1,030	1,027	1,028	1,027	1,027
Total Disposition	NA	NA	NA	NA	NA
Summary Data (billion Btu)					
Production					
Marketed.....	20,775,302	21,344,603	21,702,261	21,579,527	21,872,901
Extraction Loss	-2,400,203	-2,428,668	-2,430,350	-2,478,684	-2,607,484
Total Dry Production	18,375,100	18,915,935	19,271,911	19,100,844	19,265,417
Supply					
Dry Production.....	18,375,100	18,915,935	19,271,911	19,100,844	19,265,417
Receipts at U.S. Borders					
Imports.....	2,161,448	2,398,159	2,682,436	2,901,166	3,002,256
Intransit Receipts	491,511	330,718	498,653	502,902	548,172
Withdrawals from Storage					
Underground Storage	2,805,487	2,790,425	2,561,187	3,054,402	2,989,933
LNG Storage.....	49,990	84,408	72,668	51,808	71,157
Supplemental Gas Supplies	121,457	122,212	113,929	113,268	112,410
Balancing Item	-481,767	-412,557	-277,959	-227,156	326,397
Total Supply	23,523,226	24,229,301	24,922,825	25,497,233	26,315,742
Disposition					
Consumption.....	20,130,695	20,846,168	21,336,624	22,163,343	22,559,201
(Electric Utility)	(2,826,451)	(2,741,453)	(3,052,864)	(3,276,420)	(2,798,076)
(Non-Utility)	(17,304,244)	(18,104,715)	(18,283,760)	(18,886,922)	(19,761,125)
Deliveries at U.S. Borders					
Exports.....	220,211	142,405	163,522	155,799	155,115
Intransit Deliveries	494,912	329,229	477,710	497,849	542,354
Additions to Storage					
Underground Storage	2,632,055	2,834,251	2,874,574	2,635,161	2,984,043
LNG Storage.....	45,354	77,248	70,395	45,082	75,029
Total Disposition	23,523,226	24,229,301	24,922,825	25,497,233	26,315,742

NA = Not available.
Notes: See accompanying text for conversion factor documentation. Items appearing in parentheses are subsets of other items for which data are shown in this table and are not involved in the summing of supply and disposition. Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration (EIA), Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1992 through 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996); Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"; Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1992 through 1994); Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 and 1996); Forms EIA-191/FERC-8, "Underground Gas Storage Report"; and Form EIA-767, "Steam-Electric Plant Operating and Design Report."